





Brian Schweitzer, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

October 6, 2009

Mr. Jon Nickel Asarco Inc. East Helena Plant P.O. Box 1230 East Helena, MT 59635 RECEIVED

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Office or Emotorment
Compliance & Environmental
Justice

Subject: September 21, 2009, Compliance Evaluation Inspection - Asarco East Helena Plant

Dear Mr. Nickel:

Enclosed is my Field Investigation Report covering the Department's compliance inspection at Asarco's East Helena facility. Please review this report and enclosed document carefully.

At the time of the inspection, it appears that Asarco has met the clean-up and waste and/or secondary material disposal requirements for the Sample & Crushing Mills, Hopto Bins & Pad, Acid Plant, Sinter Plant & Blast Furnace Plant Stacks and the Material Staging and Processing area in accordance with the 2009 Cleaning and Demolition Program and 2009 Interim Measures Work Plan Addendum.

The 2009 Program/Work Plans were required by an Administrative Order on Consent (AOC) as ordered by the Department on October 2, 2007.

I want to thank you for the time spent during my inspection. If you have any questions or need further assistance, please feel free to contact me at (406) 444-5852, or e-mail me at <u>ijohnson@mt.gov</u>.

Sincerely,

Iver L. Johnson
HW Specialist
WUTM Bureau

Enc: Field Investigation Report with Photolog cc: Denise A. Kirkpatrick, MDEQ, WUTM-HW

Ms. Linda Jacobson, EPA Region 8, 1595 Wynknop St., Mail Code, 8ENF-RC,

Denver, CO 80202-1129

# MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY Permitting and Compliance Division Waste & Underground Tank Management Bureau

## FIELD INVESTIGATION REPORT

SITE: Asarco - East Helena Facility

EPA ID: MTD006230346

LOCATION: East Helena

**DATES & TIMES:** September 21, 2009 @ 10:00 am

**INSPECTION LENGTH:** 1 Hour 45 Minutes

**CONTACT:** Jon Nickel, Asarco Representative

**INSPECTION TEAM:** Iver L. Johnson

**PURPOSE:** Compliance Evaluation Inspection

**REPORT PREPARED BY:** Iver L. Johnson

BACKGROUND: The purpose of this inspection was to inspect, confirm and document, via digital photographs, Asarco's efforts to clean the Sample Mill, Crushing Mill and associated baghouse structures, Hopto Pad/Bins, Acid Plant Stack base, Sinter Plant Stack base, Blast Furnace Stack base, Material Staging and Processing Area to include (Groundwater Sump, Abandoned & New Breaking Floor Buildings, Sinter Stockpile Building, and Highline Railroad), in accordance with the 2009 Work Plan.

In addition, the inspection team observed the clean-up activities at the former Coke Storage area and the Locomotive Crane Shed.

I previously arranged with Mr. Nickel to conduct this inspection on this date and time.

**RESULTS OF THE INSPECTION:** Upon arrival at the East Helena facility, I met with Mr. Nickel in his office.

We proceeded to drive to the Sampling and Crushing Mill location where I proceeded to take digital photographs of these locations to document the current status of the clean-up activities at this location and the following sites for inspection purposes:

Sample Mill: Demolished. All demolition debris has been removed and the basement floor has been sampled for any remaining secondary material. Fumed slag will be brought in to fill the basement area. The remaining structure walls will be demolished

and leveled to grade. Northwest Lining personnel will then cover the footprint with fabric to facilitate storm water run-off. (Refer to photos 001 through 005 in the attached photolog.)

<u>Crushing Mill & Baghouses</u>: *Demolished*. All demolition debris has been removed and the basement floor was sampled for any remaining secondary material. Fumed slag will be brought in to fill the basement area. The remaining structure walls will be demolished and leveled to grade once the slag is in place. Northwest Lining personnel will then cover the footprint with fabric to facilitate storm water run-off. (Refer to photos 006 through 009 in the attached photolog.)

Hopto Pad Bins: Demolished and Cleaned. All the concrete bin walls were removed to grade level and all protruding rebar was removed to grade. The debris was disposed of in the CAMU. The Hopto Conveyor Gallery roof tunnel was cleaned and ready for fumed slag. The Hopto pad was vacuum cleaned and power washed. (Refer to photos 00010 and 012 in the attached photolog.)

Acid Plant Stack & Base: Demolished and Cleaned. The Acid Plant Stack was demolished on August 14, 2009. All the mortar used to attach the stack to the concrete base was removed. The stack base was cleaned using standard mechanical methods and them flushed with water. Fumed slag will be spread in the low-lying areas around the stack base to create proper drainage. (Refer to photo 013 in the attached photolog.)

Sinter Plant Stack & Base: Demolished and Cleaned. The Sinter Plant Stack was demolished on August 14, 2009. All the rebar was cut flush from the stack base. The impact from the Sinter Plant stack created an elongated crater that crushed both the existing concrete pad and surround soils. The stack base was cleaned using standard mechanical methods and them flushed with water. (Refer to photo 014 in the attached photolog.)

Blast Furnace Stack & Base: Demolished. The Blast Furnace Stack was demolished on August 14, 2009. All the rebar was cut flush from the stack base. The Blast Furnace Stack base contained minimal amounts of adhered ACM mastic that could only be removed after the stack was demolished. The mastic and associated concrete containing the ACM was placed in the designated area of the CAMU cell. (Refer to photo 015 in the attached photolog.)

Groundwater Sump Area: Demolished and Cleaned. The area in and around the Groundwater Sump Area footprint has been cleaned. However, a small amount of secondary material in one corner needed to be cleaned-up at the time of the inspection. (Refer to photos 016 and 017 in the attached photolog.)

Material Staging and Processing Area: Demolished and Cleaned. The area in and around the Abandoned & New Breaking Floor buildings and the Sinter Stockpile building has been vacuumed and power washed. All the debris from the buildings has been disposed of in the CAMU.

In addition, the remaining portion of the Highline Railroad area has been demolished and cleaned. All the footprints within the Material Staging and Processing area will be backfilled with fume slag to create proper drainage and then covered with fabric. (Refer to photos 016 through 023 in the attached photolog.)

In addition, I observed Cleveland Wrecking Company personnel cleaning up debris in the former Coke Storage Area. After some discussion with Mr. Nickel, I told Mr. Nickel that I would talk to Ms. Linda Jacobson, EPA, and see if this area should be filled in with fumed slag and covered with fabric as well to facilitate storm water run-off. (Refer to photo 024 in the attached photolog.)

As we were walking back to the Change House, Mr. Nickel showed me CWC efforts while cleaning the Locomotive Crane Shed. The Department received a letter from Mr. Nickel on September 24, 2009, stating that the cleaning activity at this site had been performed. I will inspect this site in the near future to confirm clean-up compliance.

Note: A copy of the digital photographs taken during this inspection is filed in the Department's Asarco facility folder along with this report.

**ADDENDUM:** On October 1, 2009, the Department received an e-mail from Ms. Linda Jacobson regarding the placement of fumed slag and liner at the former Coke Storage area. Quote: "I have discussed and emailed Iver regarding approval for the additional lining that we discussed this afternoon. By this email and my earlier statements, you can consider that EPA has approved and will grant credit for this work, based on the reasonableness of the costs."

WASTE MINIMIZATION REVIEW: None discussed.

**RECOMMENDATIONS:** Continue to adhere to Montana's Hazardous Waste Management regulations and the Standards for the Management of Used Oil.

Date of Inspection Report

Iver L. Johnson Hazardous Waste Specialist

#### MT DEQ P&C DIVISION WUTM BUREAU Photolog-asarco-32.doc

PHOTO #: ASARCO\_09264-001

SUBJECT: Compliance Evaluation Inspection

LOCATION: East Helena, MT.

COUNTY: Lewis & Clark

DATE OF VISIT: September 21, 2009

WEATHER: Sunny

PHOTOGRAPHER: Iver II. Johnson PHOTOGRAPHER (sig.)

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

EXPLANATION:

Looking southeast, this photo shows the Sample Mill basement after demolition. The basement area will be backfilled with fumed slag to achieve proper drainage in the Sample Mill footprint.



#### MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-002 DATE: September 21, 2009

PHOTOGRAPHER: Iver L Johnson

PHOTOGRAPHER (int.)

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

EXPLANATION:

Another view of the Sample Mill basement with the CSHB in the background.

After the basement is filled in with fumed slag, the concrete walls will be demolished to grade. The footprint will then be covered with fabric to allow for storm water run-off.

#### MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-003 DATE: September 21, 2009

PHOTOGRAPHER: Iver L Johnson

PHOTOGRAPHER (int.)

CAMERA: Fujifilm Finerix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

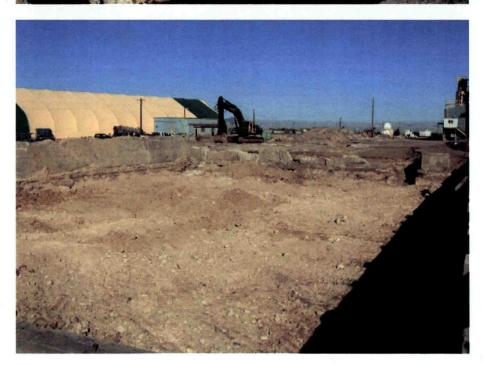
EXPLANATION:

Another photo of the Sample Mill footprint prior to Fumed slag backfill.

Excess soil was removed from the Sample Mill basement prior to the collection of the exposed demolition soil samples.







Page 1 of 8

PHOTO #: ASARCO 09264-004 DATE: September 21, 2009

PHOTOGRAPHER: Iver I Johnson PHOTOGRAPHER (int.)

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

EXPLANATION:

Just to the northwest of the former Sample Mill, this photo shows the footprint of the former Dust Load Out Baghouse area.

This area will be filled in with fumed slag, covered with fabric, brought to grade, and sloped to allow for storm water run-off.

The Blue building in the upper left of the photo is the High Grade Storage Building.

#### MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-005 DATE: September 21, 2009

PHOTOGRAPHER: Iver LyJohnson

PHOTOGRAPHER (int.)

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

**EXPLANATION:** 

Another photo of the Dust Load Out Baghouse area footprint and former location of the Crushing Mill prior to fumed slag backfill.





## MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-006 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Vohnson

PHOTOGRAPHER (int.)\_

CAMERA: Fujifilm Finepix 140 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

**EXPLANATION:** 

This photo shows the viewer all that remains of the Crushing Mill feed hopper location.



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PHOTO #: ASARCO\_09264-007 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Johnson

PHOTOGRAPHER (int.)

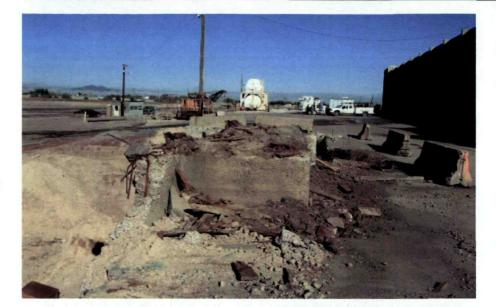
CAMERA: Fujifilm Finepik F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

EXPLANATION:

Looking northwest towards the Scale House, this photo shows the footprint of the Crushing Mill basement after demolition.



#### MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-008 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Johnson

PHOTOGRAPHER (int.)\_

CAMERA: Fujifilm Finepix 140 Digital Camera

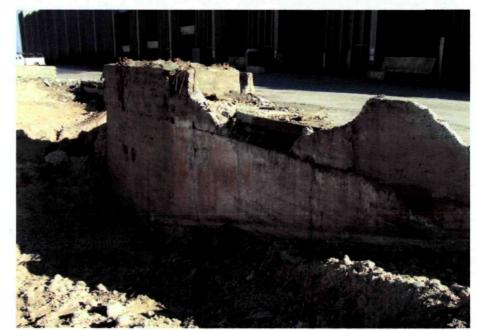
FILM TYPE: N/A

NEGATIVE LOCATION: N/A

**EXPLANATION:** 

The Crushing Mill basement will be filled in with fumed slag. After that, the support walls, as shown in this photo, will be demolished to grade and the footprint covered with fabric to allow for storm water run-off.

Excess soil was removed from the Crushing Mill Basement prior to the collection of the exposed demolition soil samples.



## MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-009 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Johnson

PHOTOGRAPHER (int.)

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

EXPLANATION:

Looking southeast, at another photo of the former Crushing and Sample Mill footprints prior to fumed slag backfill.

The former Hopto Pad and Bin location is the concrete area located just in front of the pick-up truck that sits in the background.

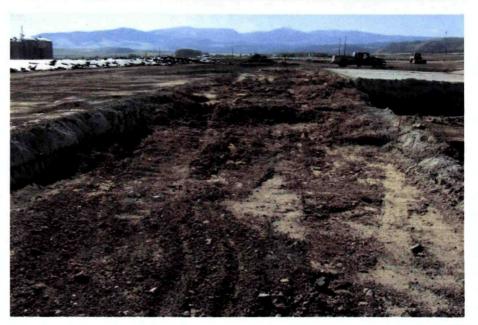


PHOTO #: ASARCO\_09264-010 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Johnson

PHOTOGRAPHER (int.)

CAMERA: Fujifilm Finepix F40 Digital Camera

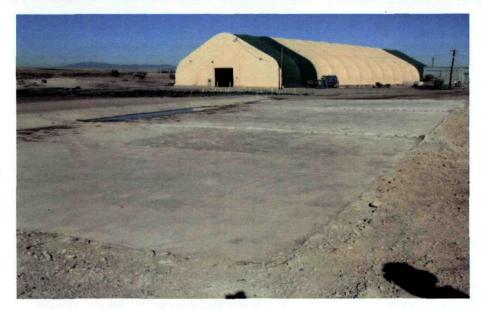
FILM TYPE: N/A

NEGATIVE LOCATION: N/A

EXPLANATION:

Looking southwest, this photo shows the former location of the Hopto pad and storage bins.

Note: All the storage bins walls were removed to grade level. In addition, all protruding rebar was removed to grade.



### MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-011 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Johnson

PHOTOGRAPHER (int.)

CAMERA: Fujifilm Finepix F40 Digital Camera

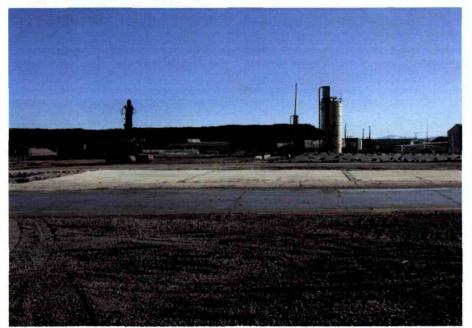
FILM TYPE: N/A

NEGATIVE LOCATION: N/A

**EXPLANATION:** 

Another photo of the Hopto Pad footprint. The pad will not be covered with fabric.

The areas in and around the Hopto unloading facility will be contoured with fumed slag.



#### MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-012 DATE: September 21, 2009

PHOTOGRAPHER: Iver LyJohnson

PHOTOGRAPHER (int.)

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

**EXPLANATION:** 

This photo shows the Hopto Conveyor Gallery that moved material to the Direct Smelt Building.

The gallery basement will be filled in with fumed slag and brought to grade to allow for storm water run-off.



PHOTO #: ASARCO\_09264-013 DATE: September 21, 2009

PHOTOGRAPHER: Iver Lyohnson

PHOTOGRAPHER (int.)

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

EXPLANATION:

All that remains of the Acid Plant Stack is the base as shown in this photo.

Fumed slag will be spread in the low-lying areas around the stack base to create proper drainage.



#### MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-014 DATE: September 21, 2009

PHOTOGRAPHER: Iver LyJohnson

PHOTOGRAPHER (int.)

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

**EXPLANATION:** 

All that remains of the Sinter Plant stack is the base as shown in this photo.

Fumed slag will be spread in the low-lying areas around the stack base to create proper drainage.



#### MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-015 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Johnson

PHOTOGRAPHER (int.)

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

**EXPLANATION:** 

This photo shows the Blast Furnace Stack Base shortly after demolition. The Blast Furnace Stack base contained minimal amounts of adhered ACM mastic that could only be removed after the stack was demolished.

All the stack debris was removed to the CAMU after this inspection was completed.



PHOTO #: ASARCO\_09264-016 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Vohnson

PHOTOGRAPHER (int.)

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

EXPLANATION:

This photo shows the footprint of the former Material Staging and Processing area that lies just to the west and south of the Direct Smelt Building.

The footprint will be filled in with fumed slag and covered with fabric.

## MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-017 DATE: September 21, 2009

PHOTOGRAPHER: Iver Lyohnson

PHOTOGRAPHER (int.)\_

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

**EXPLANATION:** 

Some minor clean-up of secondary material was still needed in the corners of the Highline area, as shown in this photo at the time of the inspection.

## MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-018 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Johnson

PHOTOGRAPHER (int.) CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

EXPLANATION:

After removing the crusher in the Abandoned Breaking Floor, the hole, as shown in this photo, will be filled in with fumed slag and covered with fabric.





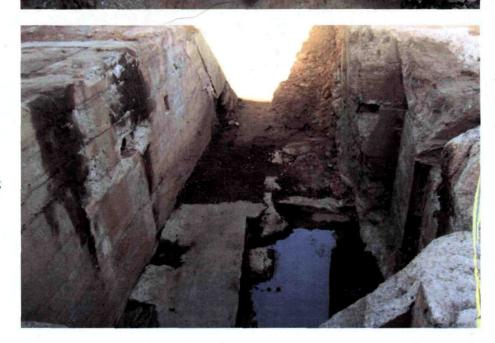


PHOTO #: ASARCO\_09264-019 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Johnson

PHOTOGRAPHER (int.)

CAMERA: Fujifilm Finepix R40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

EXPLANATION:

Looking at the footprint of the former Abandoned Breaking Floor building entrance location.



#### MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-020 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Johnson

PHOTOGRAPHER (int.)

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

EXPLANATION:

This photo shows the Coke storage area in the background (with the front-end loader) and the footprint of the Material Staging and Processing area in the foreground.

All this area will be filled in with fumed slag and covered with fabric to allow for storm water run-off.



## MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-021 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Johnson

PHOTOGRAPHER (int.)\_

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

EXPLANATION:

Looking at the footprint of the former New Breaking Floor building location.



PHOTO #: ASARCO 09264-022 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Jehnson PHOTOGRAPHER (int.)\_

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

**EXPLANATION:** 

Looking at the footprint of the former Sinter Stockpile

Building.



#### MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-023 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Johnson

PHOTOGRAPHER (int.)\_

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

**EXPLANATION:** 

Looking east, with the Direct Smelt Building in the background, this photo shows the overall footprint of the Material Staging and Processing area.



## MT DEQ WUTM BUREAU

PHOTO #: ASARCO\_09264-024 DATE: September 21, 2009

PHOTOGRAPHER: Iver L. Johnson

PHOTOGRAPHER (int.)\_

CAMERA: Fujifilm Finepix F40 Digital Camera

FILM TYPE: N/A

NEGATIVE LOCATION: N/A

**EXPLANATION:** 

One more view of the former Coke storage area that lies to the southwest of the Direct Smelt Building.

This area will be filled in with fumed slag, graded, and covered with fabric to allow for storm water run-off.

